

Colorectal Cancer Screening Assessment and Surveillance Data System

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Background. CRC is both a high volume and high-risk disease. It accounts for approximately 11% of all new cancer cases, is the third most common cancer among men and women, and ranks second among causes of cancer deaths. A number of prior studies suggest that early detection of CRC through mass screening procedures can significantly reduce population rates of CRC mortality, and current CRC screening guidelines recommend that all individuals age 50 and older receive timely CRC screening. Unfortunately, recent data from the VA Office of Quality and Performance suggest that, on average, 40% of VA patients fail to receive timely CRC screening, and little is known about compliance with CRC follow-up recommendations. Significant improvements in screening and follow-up rates can only be achieved with thorough knowledge of variations in recommended CRC screening and follow-up practice.

The features and functionality necessary to consistently and effectively track the colorectal cancer screening and follow-up activities of all eligible veteran VHA users for assurance purposes are not currently present in the extensive VA data systems. Hence, a new, centralized colorectal cancer screening and follow-up data system is needed that will facilitate access to relevant data from multiple sources, while at the same time establishing and maintaining data quality, integrity, and security.

We propose to build a centralized CRC screening assessment and surveillance system which will compliment other VA national data sets by providing: (1) an infrastructure for facility-level CRC surveillance and quality assurance programs, and (2) a larger sample for assessing CRC practices in special patient populations, and for care tracking screening complications and other rare outcomes. The information in this data system will be supplemented with Medicare and chart review data for validation purposes.

Objectives. The long term goal of this project is to develop and implement a valid and efficient national Veterans Affairs (VA) data system that can be used to: (1) assess and monitor adherence to recommended colorectal cancer (CRC) screening and follow-up practices and their outcomes in the VA, (2) inform and facilitate interventions to improve CRC screening and follow-up practices, and (3) evaluate specific improvement strategies.

The immediate objectives are to: (1) develop a data system prototype, using a sample of VA facilities, (2) develop and validate operational definitions of recommended screening and follow-up practices using VA and Medicare data, and (3) develop a functional approach for obtaining, linking and managing the components of this data system on a national scale.

Rather than testing specific research hypotheses, this project will seek to develop and implement a CRC screening and surveillance system that can be used to estimate: (1) CRC screening and follow-up rates, (2) variation in screening and follow-up rates by organizational and patient characteristics, (3) the reliability and validity of combined VA and Medicare administrative databases for assessing and tracking recommended CRC screening and follow-up practices, and (4) the impact of Medicare service coverage on the screening and follow-up rates of VA users.

Significance. The development of such a screening and surveillance system will facilitate data linkages, analyses, complex ad hoc queries, graphical depiction of data relationships, and other reporting functions. The potential uses and benefits that such a surveillance system would provide the VA are manifold and include: an increased ability to quickly gather national datasets for examination of issues related to CRC screening and follow up care; a centralized data system for monitoring and evaluating aspects of the

quality CRC screening and follow-up services provided by the VA's health care system; and a centralized data collection system for rapidly assessing and evaluating the impact of specific CRC screening and follow-up improvement projects. The data system resulting from this project will provide a foundation for future CRC screening and follow-up quality improvement efforts and can be used to: (1) assess national and local adherence to recommended CRC screening and follow-up practices on an annual basis, (2) identify gaps in recommended practices, (3) facilitate evaluation of strategies for reducing these gaps, and (4) trigger computerized notification and prompting strategies for enhancing compliance with recommended CRC practices. The final report summarizing adherence to recommended CRC screening and follow-up practices, variation in adherence by patient and facility level characteristics, and areas of greatest need for the sample of VA facilities used to develop the data system will provide a prototype for national reporting by the QUERI-CRC.